



COALOLOGY

Written by E. F. Murphy.

THE STORY OF THE
FAMOUS LETHBRIDGE IMPERIAL COAL



CANADIAN COAL AND COKE CO., LIMITED.

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ALBERTAENSIS



There were many mighty earthquakes,
We won't say how many or when.
There were many volcanoes in action,
The heat of the earth was intense.
As the mountains toppled over
The pressure was immense.
Then other plants grew and flourished
And later turned to peat.
The earth's queer actions still kept up
And nature was storing up heat.
These changes kept going for ages
And then when the time was come
The Lord finished the great creation
And saw that it was done.

—P. T.

THE FORMATION OF COAL

HARK back with me a little while—
Ten thousand years or so—
To the time this earth was without form
And wandered to and fro.
The Lord looked down from Heaven above;
The sea and land were made,
And ferns and trees did thrive and grow
On the hill and in the glade.
These ferns and trees grew tall and great
And died and fell to earth,
And other trees among them grew,
Of plants there was no dearth.
This growth and fall kept up for years
And formed thick beds of peat,
Which in later years were turned to coal
And used by man for heat.
Remember, these things we are telling
Came before there were any men.
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We won't say how many or when.
There were many volcanoes in action,
The heat of the earth was intense.
As the mountains toppled over
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VOL. I.

No. 1

TO THE COAL TRADE

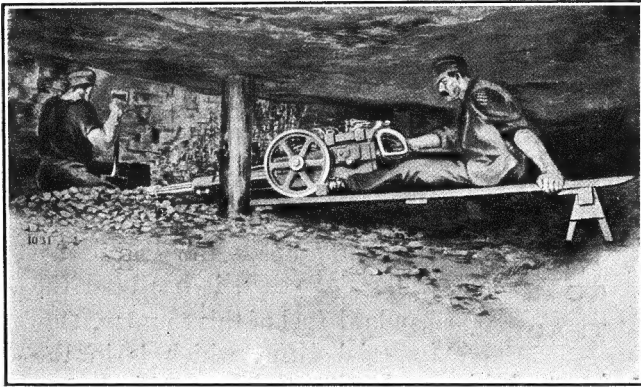
You know about the Lethbridge Coal. For years, it has been the standard fuel of this country. Our Imperial Mine, which is in the heart of this district, has the deepest shaft and hardest coal in the entire field.

In a word, it is the oldest "Made in Canada" product.

We guarantee the Lethbridge Imperial Coal as representing the highest standard of quality, condition, service and reliability. Thousands of satisfied customers throughout Western Canada can be found to back this warrant.

Because we desire, in the open market, to make a fair and earnest effort to secure your permanent patronage, we are here attempting to set down the story of the mining of our Lethbridge Imperial Coal, and the process to which it is subjected in preparation for shipment.

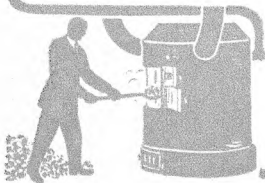




UNDERCUTTING SHOOTING AND LOADING OF COAL

In the Imperial Mine, which is operated by special machinery, coal is undercut by compressed air, the lines of which run to all parts of "the workings." The machine is drawn closely to the coal face and set upon an inclined table as shown in the accompanying photograph. The machine's operations continue until the entire room has been cut to the depth of four and one-half feet, the cut being twelve inches high at the front, and three inches at the rear.

This being accomplished, the miners drill a hole in the centre of the room and blow it down by powder. This process is technically known as "shooting." In the open air these ripping charges are loaded into the sides

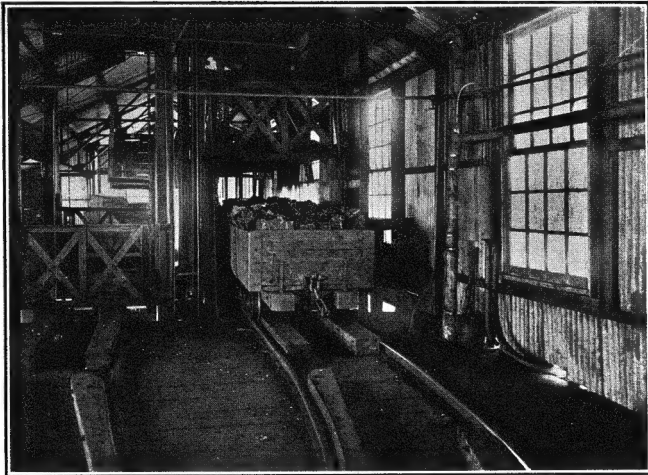


of old King Coal would be of terrific detonation, but in the lifeless, leaden atmosphere of the stratum the sounds are muffled and indistinct.

When the smoke has cleared away, the coal is loaded into cars and hauled along the entries or tunnels to the bottom of the shaft, where it is placed on the cages and hoisted to the surface.

This process of undercutting preserves the coal from being over-fractured and enables us to supply large lumps of coal for domestic use instead of the "slack," dust, and fragments so frequently foisted upon the long-suffering consumer by the selling agents of ill-equipped mines.





HOISTING If you get into one of these down-going cars, we will show you how our Imperial Coal reaches the surface.

Leaving the sharp intensity of the sunlight, you are suddenly dropped into a pit of blackness for nearly seven hundred feet. Being your first trip, you have a sense of swift adventuring; you feel yourself rolled into a tight little ball, and every nerve as hard as a nail; you hope the long, lithe cables of steel which hold the cage are stronger than they look; you wonder if you will come out feet foremost in the Antipodes, and if it will hurt very much.

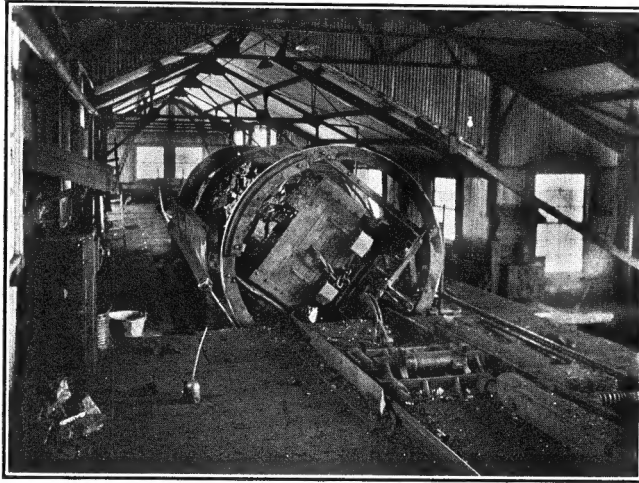
But presently, having reached the shaft bottom you are surprised



to find yourself in a large entry, the walls of which are built of concrete and the roof of which is supported by massive girders of steel. Instead of the silence and black impenetrableness you were expecting, you find a blaze of electric light and the busy clangor of steel on steel, for this is one of the best-equipped, most up-to-date mines in the whole of the Canadian coal fields.

You have already stepped aside until two mine cars, each containing about one and a-half tons of coal, take your place on the up-going cage. The signal having been given, the coal is hoisted till it reaches a house, high above the ground (see photograph), at what is called "the dump level." Here the cars, which have been automatically locked, are now automatically released and sent travelling in tandem fashion on their way to the rotary dump.





DUMPING On approaching the rotary dump, the full cars push off the empty ones, which are automatically returned to the back of the cage, in position, to replace the next cars hoisted.

The two full cars which are held in the dump are turned over slowly (see photograph), the coal being discharged with a sliding motion to a shield or apron, which distributes it without drop to the head of the first screen, thus avoiding all possible breakage. These upper screens are set on an angle of twenty degrees, and consist of long bars of steel so spaced as to permit of proper screening. This lump coal slides off the bars into two baskets,



one for each screen, where it is weighed and the amount of coal credited to the miner whose check was on the car.

As the word "dump" means to throw violently, and was, of former times, applied with propriety to the tempestuous torrent of coal which was thrown from the hopper-bottoms to the iron screens, thus breaking the coal, it would seem that a more fitting and descriptive word might be applied to this process as at present conducted in our Imperial Mine.





THE SCREENING AND PREPARATION OF IMPERIAL COAL

From the weigh baskets the coal is released into reciprocating feeders, which automatically feed the coal over two second slanting screens (shewn covered with coal at the rear of photograph), and having a spacing of the bars slightly wider than those of the first screens.

From the second screens, the coal passes into two picking belts, each sixty-five feet long and five feet wide, which travel at a rate of fifty-five feet per minute. On these it is carefully picked over, all slate and Black Jack being thrown upon a smaller centre belt, which delivers this refuse to special cars which carry it to

the waste heap. The picked coal slides from the belts on to a cross conveyor, which runs at right angles, where it is again examined and re-picked.

At the end of this belt is a shaker screening chute, which feeds the coal into the railway cars, and which eliminates from it the smallest particle of slack.

The slack taken from the first screens is carried to a shaking screen by means of an elevating conveyor, where it is separated into nut coal and straight slack. These products can be mixed if so required.

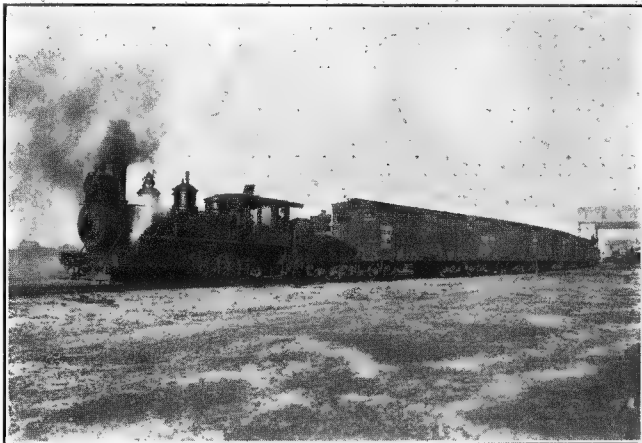
The nut coal, after being screened, is also run over a separate picking belt where all the slate is picked out preparatory to loading the clean product into the railway cars. The slack from the last screen at the loading chute is used in the Colliery boilers.

It will thus be seen that our frequently repeated claim of selling only "hand-picked coal" is an assertion which both the dealer and the purchaser may rely upon with entire security.



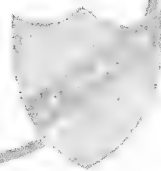
LOADING OF IMPERIAL COAL

To load our Lump Coal with the least amount of breakage, a latest design of cradle box-car loader is installed. This loader is mechanically operated, and when the railway car is in place, the centre part of the first car is loaded; the loader then tilts the car at an angle sufficient to permit the coal, as it is loaded at the door, to gently slide to the extreme end of the car. When the centre and one end of the car is loaded, the railway car is then tilted to the opposite angle and the other end loaded. This cradle loader then brings the car to a horizontal position completing the loading of our Lump Coal with practically no breakage.



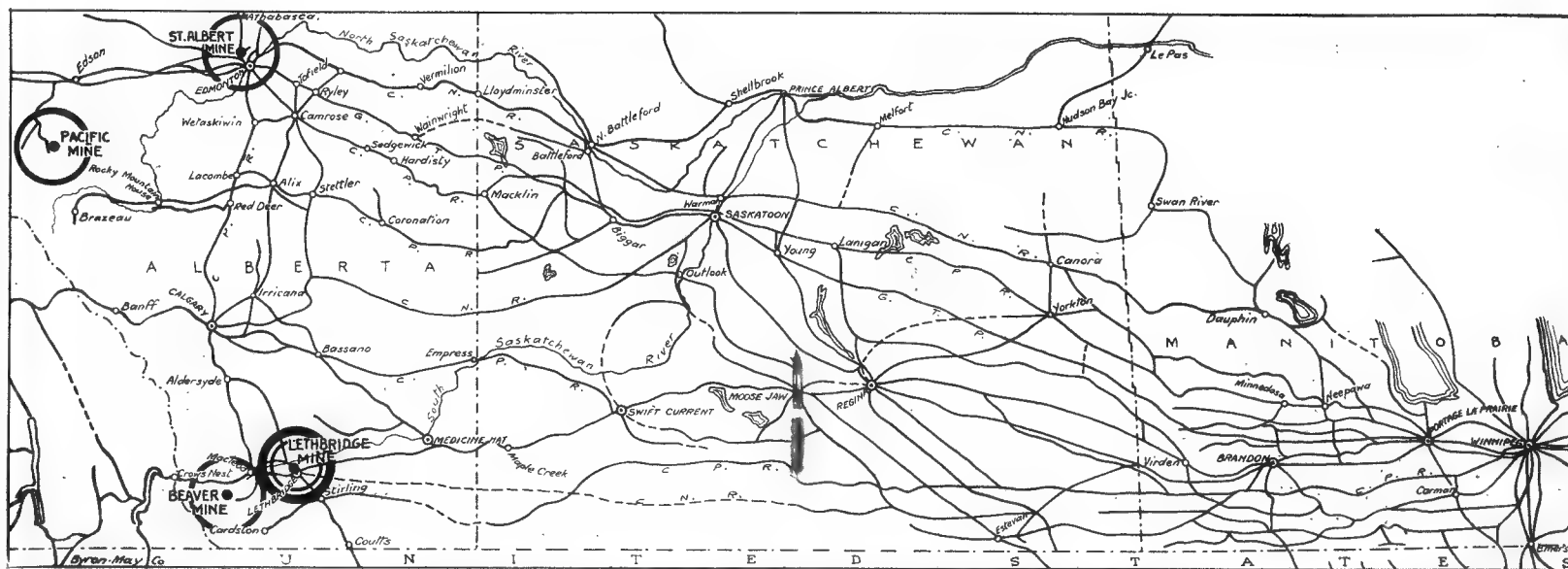
**HAULING LOADED
RAILROAD CARS**

When the railroad car is loaded, it is switched to the yard tracks, where it is picked up by our locomotive and, as soon as a train is made up, hauled to our track scales to be weighed.





PANORAMIC VIEW OF OUR LETHBRIDGE IMPERIAL MINE



MAP OF WESTERN CANADA SHOWING LOCATION OF OUR MINES



WEIGHING OF IMPERIAL COAL

Before the railway cars are placed at the loading plant, they are inspected and all refuse is removed. The car doors are then boarded up and the cars weighed on a 150-ton Track Scale, so as to obtain the accurate tare weight of the car, and a ticket is automatically punched showing this weight.

After the railway cars are loaded with coal, they are again weighed, the same ticket being punched giving the gross weight.

Our yard scales are periodically inspected by the Colliery officials, by the Dominion Government, and by the Canadian Pacific Railway; all these checks permitting of no possible chance for inaccuracies.





INTERIOR OF SCALE HOUSE

FRONT

Car No. 142004 Initial *CP Box*

114000 Gross

37700 Tare

76300 Net

Date *23rd Mar /15*

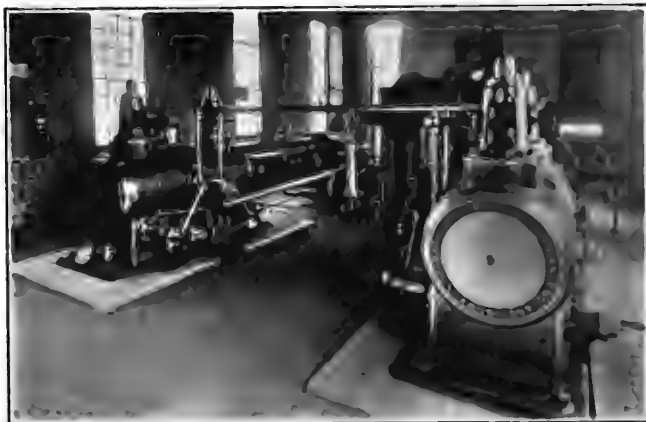
BACK

This registered design given on the reverse
is the property of the Patent Office.
Patented by the Patent Office. Patented
in 1885.

FRONT AND BACK OF WEIGHT CERTIFICATE



SCREENING PLANT AND POWER HOUSE BUILDING



**INTERIOR OF
MAIN HOISTING ROOM**

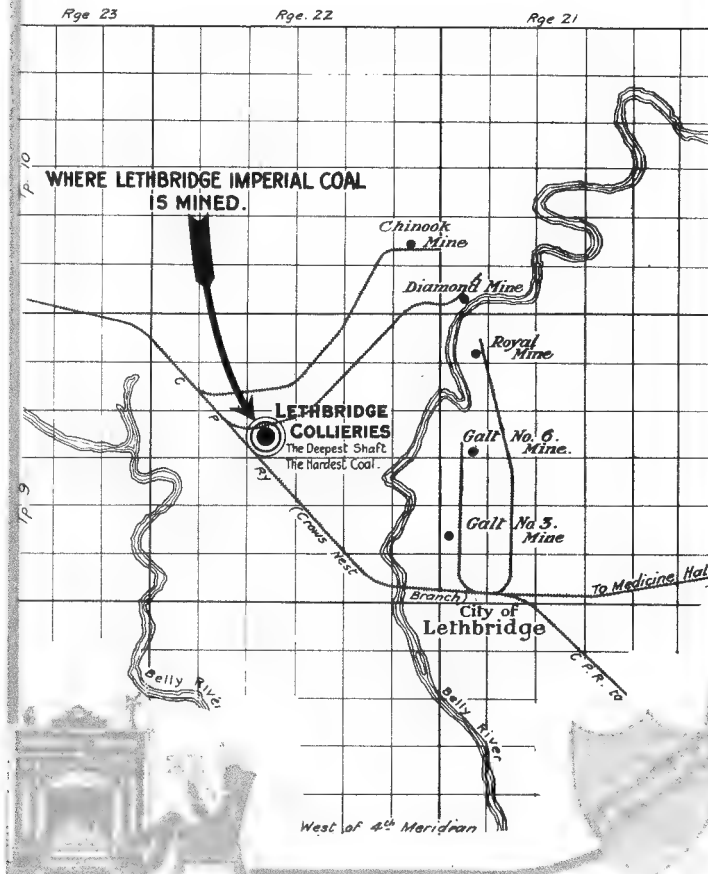


INTERIOR OF BOILER HOUSE SHOWING AUTOMATIC STOKERS



INTERIOR OF POWER HOUSE SHOWING COMPRESSED AIR
AND ELECTRIC PLANT

MAP OF THE
LETHBRIDGE COAL FIELD
SHOWING WHERE
THE FAMOUS LETHBRIDGE IMPERIAL COAL
IS MINED AND PREPARED.



BRIEFLY TOLD

Imperial Coal is the best in Western Canada

Maximum of heat from a minimum of coal.

Picked over by hand.

Easily ignited and almost smokeless.

Rigorously inspected before shipment.

Is graded in size for domestic, steam and
All heat and no waste. [range purposes.

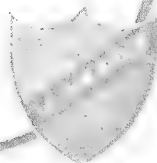
Loaded by specially designed machinery.

Can be stored without weathering.

Outrivals all competitors in heat and hardness.

Ash white and non-clinkering.

Leaves customers satisfied with its value.





**OUR
ADVERTISING
DEPARTMENT**

Our Advertising Department is fully equipped to take care of all special advertising work. We maintain our own Printing Department, which enables us to furnish special advertising to our dealers at short notice.

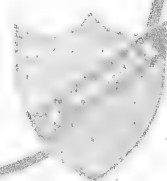
This advertising creates an increased demand for LETHBRIDGE IMPERIAL COAL, as our signs and advertising matter are prominently displayed throughout the Canadian West.

We have undertaken this advertising campaign for the purpose of assisting all retailers handling LETHBRIDGE IMPERIAL COAL, and we believe that by doing so we can best serve our retailers and the coal consumer.

**FUEL TESTING AND
ENGINEERING
DEPARTMENT**

If you have any heating problems, we invite you to get in touch with our Fuel and Engineering Department.

We will cheerfully furnish our dealers with any suggestions as to proper design of furnace and boiler grates, also the proper draughting of furnaces, stoves, ranges, etc., to get the most economical results, and best heating value from the burning of coal.



TESTIMONIALS.

From Some of Our Agents

"I have sold several different kinds of coal. But for Prompt Shipments and happy customers, I will take LETHBRIDGE IMPERIAL COAL, Best in the West, for mine."

"As a dealer, I have handled "Imperial" Coal for over two years, and my experience has been that it is without doubt the best domestic coal I have ever used or sold. I use it exclusively in my own house, and the many customers I have demand nothing else for domestic purposes. There is more "Imperial" Coal sold in K— and district than all other domestic coals put together."

"I beg to state that I have used your coal, and I find it to be very satisfactory, both in heaters and also in the cook stoves, and none other can compare with the Imperial Coal, and I can fully recommend the Lethbridge Imperial Coal to any one."

"I was looking through your account the other day, and I find we have had over one hundred cars of your IMPERIAL Coal. I felt it was due you to know how pleased and satisfied we have been with the uniform quality of it, and also



your methods of handling the business. Hope we may long continue to sell IMPERIAL Coal."

"I find since using the Imperial Lethbridge Coal that I have the best value for my money, both for heating and cooking purposes."

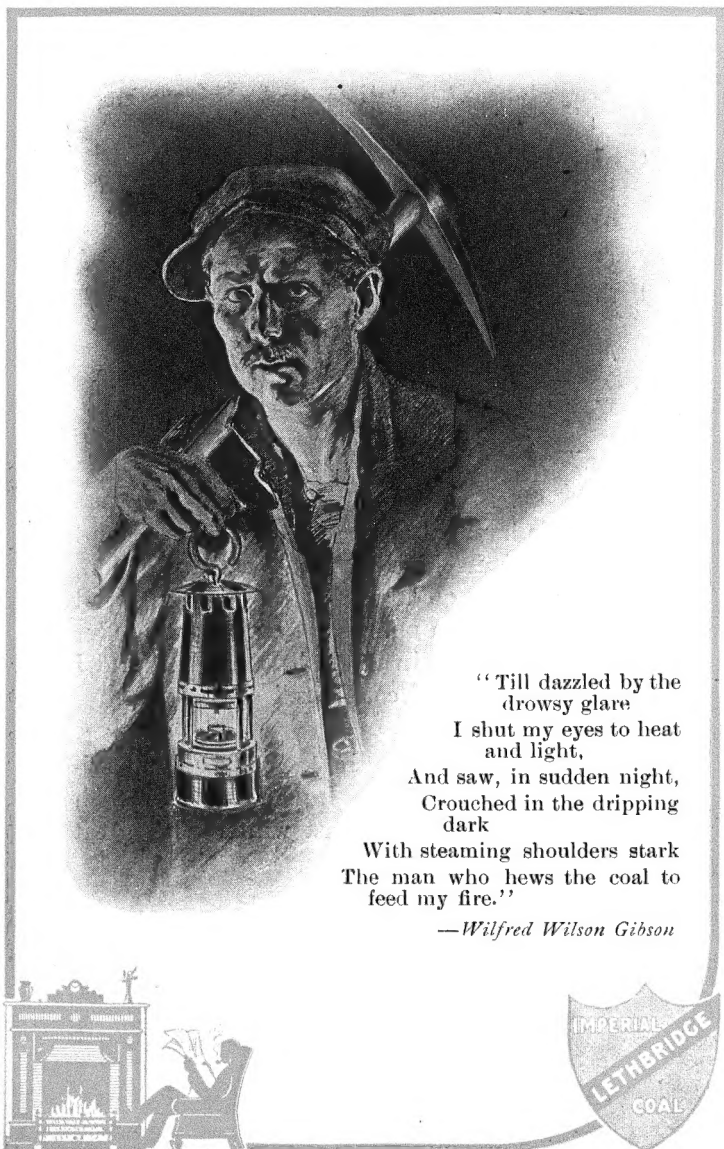
"Last season I tried your Imperial Coal, and take much pleasure in stating that it gave the best of satisfaction, both to myself and customers."

"I have handled your coal one year now, and wish to express herein my entire satisfaction, both as to the quality of Lethbridge Imperial Coal and also the manner of treatment I have received from you in all dealings to date, and I trust that same will continue."

"We can, with pleasure, testify to the superiority of the Lethbridge Imperial Coal, which was used by us during last winter with great satisfaction."

The above statements are extracts from letters on file at our office.





“Till dazzled by the
drowsy glare
I shut my eyes to heat
and light,
And saw, in sudden night,
Crouched in the dripping
dark
With steaming shoulders stark
The man who hews the coal to
feed my fire.”

—Wilfred Wilson Gibson





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